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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,889	02/04/2004	Mikko Rinne	037145-0701	3881
30542	7590	02/06/2008		
FOLEY & LARDNER LLP P.O. BOX 80278 SAN DIEGO, CA 92138-0278			EXAMINER BALAOING, ARIEL A	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 02/06/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/771,889

Applicant(s)

RINNE ET AL.

Examiner

Ariel Balaoing

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 and 15-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13, 15-25, 27 and 28 is/are allowed.
- 6) ☒ Claim(s) 26 and 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Applicant's arguments filed 11/15/2007 with respect to **Claims 26, 29** have been fully considered but they are not persuasive.

Regarding the applicant's arguments that "*Cheng et al. provides no teaching or discussion of wideband and narrowband channel frequencies in even a general sense ... nowhere in Cheng et al. is there any discussion of whether one or both of the frequency channel allocations comprise wideband or narrowband frequencies*" (see page 2, last paragraph of the remarks); the examiner respectfully disagrees. Cheng discloses as an example, a hand down procedure from a CDMA system to an AMPS system. While the terms "narrowband" and "wideband" are not expressly used, it is known in the art that a CDMA system operates using wideband signals and AMPS systems operate using narrowband signals. Therefore, as shown in the example disclosed in col. 2, lines 1-19, shows the use of wideband frequencies when the mobile station is located in a CDMA cell and the use of narrowband frequencies when approaching a border region of an AMPS cell. Furthermore, MCGOVERN is used in combination with CHENG. MCGOVERN shows the use of both wideband and narrowband frequencies and therefore when viewed with the teachings of CHANG's hand down procedure, would disclose the use of wideband as a first frequency and narrowband as a second frequency.

2. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., if the second set of frequencies were narrowband frequencies, the mobile station

would operate in a narrowband frequency even when the mobile station is at the center of the second cell) are not recited in rejected **claims 26, 29**. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

3. Applicant's arguments, see page 4, last paragraph of the remarks, filed 11/15/2007, with respect to the 102/103 rejections of claims 1-13, 14-25 have been fully considered and are persuasive. The 35 U.S.C. 102 and 103 rejections of claims 1-13, 14-25 has been withdrawn.

***Allowable Subject Matter***

4. The following is an examiner's statement of reasons for allowance:

Claims 1-13, 15-25, 27, and 28 are allowed.

Regarding independent Claims 1, 13, and 20, the use of both wideband and narrowband frequencies using a dual or multi mode phone is conventional in the art, however, the prior art of record does not disclose the exclusive use of narrowband frequencies when a mobile device is within a cell boundary region and the exclusive use of wideband frequencies when a mobile device is not in located within a cell boundary region. CHENG shows the use of a hand down from a wideband to a narrowband frequency when approaching a narrowband cell that is used to lessen dropped calls when approaching a cell boundary, however, CHENG does not show a switch back to wideband frequencies when out of the boundary area.

5. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over MCGOVERN et al (US 2002/0142777 A1) in view of CHENG et al (US 6,771,963 B1).

Regarding claim 26, MCGOVERN discloses a method for decreasing required radio spectrum in a communication system using variable bandwidth, the method comprising: dividing radio frequencies of the communication system into a wideband channel radio frequency and narrowband channel radio frequencies (paragraph 11, 12, 21, 27, 28); and communicating user data using both the wideband channel radio frequency and the narrowband channel radio frequencies (paragraph 11, 12, 21, 27, 28). However, MCGOVERN does not expressly disclose wherein, when a device involved in the communication approaches a cell border, the device is handed to a narrowband channel radio frequency from the wideband channel frequency for communicating user data. CHENG discloses wherein, when a device involved in the communication approaches a cell border, the device is handed to a narrowband [AMPS] channel radio frequency from the wideband channel frequency [CDMA] for communicating user data (col. 2, line 1-20). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify MCGOVERN to include the indirect handover procedure taught by CHENG, since CHENG states that such a modification would lessen dropped calls when approaching a cell boundary (i.e. range of serving base station).

6. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over MCGOVERN et al (US 2002/0142777 A1) in view of CHENG et al (US 6,771,963 B1), and further in view of HALL (US 5,299,228).

Regarding claim 29, see the rejections of the parent claim concerning the subject matter this claim is dependent. However, the combination of MCGOVERN and CHENG

does not expressly disclose wherein the device is further handed to a narrowband channel radio frequency for communicating user data when the device is in an idle mode. HALL discloses wherein the device is further handed to a narrowband channel radio frequency for communicating user data when the device is in an idle mode (abstract; col. 2, line 14-36). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of MCGOVERN and CHENG to use narrowband frequencies when a device is in idle mode, as taught by HALL, as HALL states that such a modification would minimize the power consumption of the mobile device (col. 2, line 28-36).

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ariel Balaoing whose telephone number is (571) 272-

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7317. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ariel Balaoing – Art Unit 2617

AB



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